

**Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DIVISION OF ENERGY RESOURCES**

**Summary of the
Proposed Final Regulations for the Massachusetts
RENEWABLE ENERGY PORTFOLIO STANDARD
at 225 CMR 14.00**

June 6, 2007

A. INTRODUCTION

This document provides background, a summary, and discussion of the proposed final Regulations for the Massachusetts Renewable Energy Portfolio Standard (“RPS”) at 225 CMR 14.00 (“Regulations”).¹ This is the first revision of those Regulations since the Division of Energy Resources (“DOER”) promulgated the RPS Regulations as 225 CMR 14.00 on April 26, 2002.

The purpose of the RPS is to stimulate the development of new electric generating units that use renewable fuels and technologies by requiring that retail electricity suppliers selling electricity in Massachusetts include a prescribed, annually-increasing percentage of electricity supply from qualified renewable generators. The policy objectives of the statute and of its Regulations, as administered by DOER are the following:

- Increase the share of our electricity generated by new renewable resources;
- Decrease atmospheric pollution from the regional fleet of power plants that serve Massachusetts consumers;
- Diversify the fuels used to generate power that serves Massachusetts consumers;
- Decrease the reliance of Massachusetts on fossil fuels imported from other regions; and
- Moderate electricity price volatility in Massachusetts caused by reliance on imported fossil fuels.

¹ The Massachusetts Renewable Energy Portfolio Standard was enacted by the Legislature on November 25, 1997, as General Law chapter 25A, section 11F.

During the first four years of administering the RPS (2002-2006), DOER, retail electricity suppliers, and renewable energy industry participants (DOER as the regulator, the others as the regulated) identified provisions of the Regulations that required clarification or modification in order to accomplish the intent of the enabling statute more effectively and efficiently. To a considerable extent, those clarifications concerned the manner in which DOER qualifies biomass electric generating units under the statutory criteria of “low emissions” and “advanced biomass power conversion technologies.” Other important changes in the Regulations include the following:

- providing additional detail for the definition of “eligible biomass fuels;”
- revising the provisions for qualifying generating units under the “vintage waiver;”
- committing DOER to a date by which the continuation of RPS minimum percentages for the period beyond 2014 will be decided; and
- clarifying how retail electricity suppliers must ascertain and document their compliance with RPS.

B. PUBLIC REVIEW PROCESS

DOER undertook a detailed review of the Regulations and consulted with numerous stakeholders in an informal but public inquiry during the second half of 2005. The proposed revisions in the Regulations both address the issues that DOER and the stakeholders identified in the 2005 inquiry and respond to the comments received during a formal public review process in 2006.

On June 2, 2006, DOER issued for public comment proposed revisions to the RPS Regulations along with an accompanying draft *Guideline on the RPS Eligibility of Biomass Generation Units* (the “Guideline”). On June 2, 2006, DOER sent a *Notice of Public Hearing* to the Secretary of State for June 16, 2006, publication in the *Massachusetts Register*, as well as to three newspapers of general circulation – the *Boston Herald*, the *Worcester Telegram & Gazette*, and the *Springfield Union-News* – for publication early the following week. A Public Hearing on the proposed revisions, as well as on the concurrently issued draft *Guideline*, was held in Boston on June 28, 2006. Interested persons were invited to provide oral statements at the Hearing and/or written comments. All notices, documents, written comments, and other information were posted electronically in the RPS section of the DOER website at this URL: http://www.mass.gov/doer/rps/rps_rule_revs.htm.

The June 28th Hearing was attended by 41 individuals, many of whom made oral statements that DOER recorded electronically. Written comments were received from eleven individuals or groups by the July 6th deadline for initial comments and from 26 by the July 18th deadline for final comments. All 37 written comments were listed and posted electronically in the RPS section of the DOER’s website, cited above.²

² DOER also received short letters (not posted electronically) from a number of interested citizens who expressed opposition to the burning of construction and demolition (C&D) debris either in Massachusetts incinerators or in the

C. ACTIONS SUBSEQUENT TO PUBLIC REVIEW PROCESS

Subsequent to the public review process, the Commissioner and staff of DOER reviewed in detail all of the public comments, giving due consideration to all views that had been expressed, and also consulted with the Massachusetts Department of Environmental Protection (MassDEP). DOER then revised the draft of the regulations that had been subjected to public comment, as well as the *Guideline* that had been publicly reviewed.

On November 6, 2006, DOER submitted to the Clerk of the House of Representatives the proposed Final Regulations, along with the revised *Guideline*, for review by the appropriate legislative committees, as prescribed under M.G.L. ch. 25A §12. However, the committees were provided insufficient time before expiration of the legislative session. Early in 2007 officials appointed by newly elected Governor Patrick decided to withdraw the proposed regulations in order to conduct a new internal review.

Although the Legislature has before it several bills that would substantially alter the RPS in various ways, DOER requests that the Legislature consider and comment upon the proposed final Regulations submitted herewith, thereby enabling DOER to promulgate final Regulations without undue delay. The period of time that has elapsed since the beginning of the RPS rulemaking process one year ago, with the resulting atmosphere of uncertainty and expectation, has hindered both DOER in fulfilling its regulatory responsibilities and renewable energy developers and retail electricity suppliers in responding to the regulations. Further delay will have a negative effect on the success of this program.

The proposed final Regulations submitted at this time differ in the following substantive respects from those submitted for legislative committee review last November:

- DOER has withdrawn the proposed definition of Organic Refuse-Derived Fuel. At a later date, DOER will revisit the definition and also decide whether and with what restrictions fuel derived from the woody residues of construction and demolition debris qualifies as an Eligible Biomass Fuel. (225 CMR 14.02)
- DOER has withdrawn the proposed criteria by which it will determine whether a biomass-fueled Generation Unit uses an advanced biomass Power Conversion Technology. (225 CMR 14.05(1)(a)6)
- DOER has further revised the previously proposed Co-Firing and Blended Fuel Waiver by introducing low-emissions criteria consistent with those utilized for all such power plants within the Commonwealth. (225 CMR 14.05(3)(c))

D. SUMMARY OF STAKEHOLDER COMMENTS

In the course of the public comment process, the views of various stakeholders were made clear. Biomass developers welcomed the simplification and clarity embodied in the proposed Regulations. However, some persons objected to revisions that would facilitate development of biomass projects that would be RPS-eligible. Developers of non-biomass

Russell Biomass plant proposed for Russell, MA. That same view was also expressed in some of the letters that also directly addressed the proposed RPS revisions and, therefore, were posted electronically.

renewable projects questioned DOER's interpretation of portions of the RPS statute to allow greater biomass eligibility, especially the proposed elimination of the categorical exclusion of stoker combustion, as well as DOER's authority to address certain issues through the use of guidelines rather than formal regulations. Environmental groups also criticized interpretations of the statute that expand biomass eligibility.

Of all of the revisions, DOER's proposal to explicitly list as a "eligible biomass fuel" wood from construction and demolition (C&D) debris evoked the greatest number of comments, especially from individual citizens who live in or near the Town of Russell, where a new 50 MW, non-C&D, biomass plant is proposed. Most of their comments discussed the dangers of non-organic materials (paints, resins, glues, toxic metals, etc.) in C&D waste and the potential for its emissions after burning to harm human health. Some biomass developers were in favor of C&D wood as an eligible fuel. Environmental groups were generally opposed, but some were open to the use of C&D wood in a carefully monitored pilot project to assure stringent sorting requirements to eliminate contaminated wood content. Several individual citizens from the town of Russell spoke at the hearing about their fears of the health affects of burning C&D debris. DOER consulted extensively with the MassDEP on this matter and did not find evidence to support their fears. However, DOER has concluded that this matter cannot be resolved expeditiously and requires further discussion among the relevant agencies within the Executive Office of Energy and Environmental Affairs and further consultation with stakeholders.

In addition to the detailed comments on low-emission, advanced biomass power conversion technologies and on the eligibility of wood from C&D debris, the following substantive issues were addressed in some comments:

- Definition of "low-emission," referencing the concurrently issued draft *Guideline*;
- Elimination of the Advisory Ruling provision;
- Use of guidelines as the locus of eligibility standards;
- Changes in the Vintage Waiver provisions;
- Location and eligibility of behind-the-meter and off-grid generation; and
- Location of power plants outside of the ISO New England Control Area from which New Renewable Generation can be imported

E. DISCUSSION OF THE MAJOR ISSUES

The RPS statute, part of the Electric Industry Restructuring Act of 1997, says that biomass units, to be RPS eligible, must be "low emission" and use "advanced biomass power conversion technologies." These criteria for RPS eligibility were incorporated in the initial version of the RPS Regulations, promulgated in 2002. However, no specific definition of these terms was included in that original version of the Regulations, except to provide a categorical exclusion for certain technologies (pile burn and stoker combustion). The primary focus of the current revisions is to clearly define the requirements for demonstrating that a unit will be "low-emission," as well as to remove the categorical exclusion of pile burn and stoker technologies, for reasons explained below. Along with streamlining and simplifying the low-emission

eligibility criteria for biomass units in the proposed final Regulations and further revised *Guideline*, DOER proposes to eliminate from the Regulations the Advisory Ruling provision, currently at 225 CMR 14.06 (5).

Specifying “Low-Emission” Criteria

The proposed final Regulations, by reference to the *Guideline*, reduce the number of pollutants that must be met to qualify as being “low emission” to two: nitrogen oxides (NO_x) and particulate matter (PM). This is a significant departure from past practice, whereby units were required to meet emission limits for a full suite of pollutants (including SO₂, NO_x, PM, ammonia, CO, VOC, toxics, opacity), but with the particular limits established on a case-by-case basis in consultation with the MassDEP. For the new *Guideline*, we have determined in consultation with the MassDEP that NO_x and PM are the principle emissions of concern with biomass plants, and that limits on these two, when coupled with the standard requirement to obtain a permit from a state’s air pollution control agency for the full suite of pollutants described above, fulfill the legislative requirement that the units be “low emission.” The specific limits on NO_x and PM, as well as procedures for monitoring and reporting emissions, are found in the accompanying *Guideline* referenced by the Regulations. The use of the *Guideline* will allow the exact emission limits to be refined over time as technology improves. Specification of specific limits and fewer pollutants will provide biomass developers with the greater certainty on the project design and equipment selection needed to achieve eligibility.

Since last November, DOER has introduced a further change to the draft regulations regarding the low-emissions criteria for Generation Units that co-fire Eligible Biomass Fuels along with ineligible fuels. This change would apply to such power plants in all jurisdictions the criteria that the MassDEP applies to such plants within the Commonwealth. The effect of this change will be to facilitate the co-firing of RPS-eligible fuels with ineligible fuels, whether fossil or otherwise, provided that the plants meet the stringent standards of the MassDEP. Such co-firing is virtually impossible under the current regulations. Qualification of the electricity output still will be limited to the fraction attributable to the eligible fuels.

Specifying “Advanced Biomass Power Conversion Technology” Criteria

The original regulations categorically excluded some “old” biomass technologies (pile burn and stoker combustion). In practice, DOER accepted some arguably “newer” and more “advanced” technologies. This simplistic approach proved very difficult to administer as it soon became clear that the combustion efficiency of older types of technology were being dramatically and continuously upgraded, and that they were demonstrably as fuel efficient as some relatively newer technologies, sometimes even more efficient. Further, DOER has learned that stoker technology is itself not clearly defined and includes a continuum of design and performance which leads into technologies often referred to as “gasification.” In conclusion, categorical exclusions proved far too rigid, and DOER has chosen to eliminate them.

However, elimination of the categorical exclusion to pile burn, stoker technologies still does not result in specific criteria in the regulations for “advanced”, leaving DOER to exercise its best judgment on a case-by-case basis. DOER recognizes that developing specific criteria to define “advanced” is complex, and that developers inherently have operational and economic

incentives to operate in an advanced, efficient manner. Therefore, until further notice, DOER will review proposed projects on a case-by-case basis.

F. OTHER PROPOSED FINAL REVISIONS

The proposed final revisions to the RPS Regulations include the following other significant changes:³

1. Eligible New Renewable Fuels, definitions at 14.02 have been revised and clarified:
 - a. Moves “anaerobic digester gas” from the definition of Eligible New Renewable Fuel to Eligible Biomass Fuel, where it properly belongs per the statute.
 - b. Eliminates from the term “organic refuse-derived fuel” the modifying language, “that is collected and managed separately from municipal solid waste,” which has no basis in the statute. The statute excludes “conventional municipal solid waste plant technology in commercial use” and not the fuels used in such plants.
 - c. Introduces the new term “Blended Fuel” and provides for its partial eligibility in a revised “Co-Firing and Blended Fuel Waiver.” This includes such liquid or gaseous fuels as biodiesel blends, in which a pure Eligible Biomass Fuel or landfill methane gas is blended with ineligible fuels, such as petroleum diesel or pipeline natural gas. Also at 14.05 (3).
2. RPS “Guidelines” (including the concurrently-issued biomass *Guideline*) may be issued and updated periodically and take effect upon issuance, except that any revised biomass eligibility criteria would take effect 24 months following publication of any revision of the biomass *Guideline*. At 14.02 and 14.05 (1) (a) 6.b.
3. Low-Emission, Advanced Biomass Power Conversion Technologies:
 - a. Eligibility criteria for “low-emission” have been simplified and are detailed in the *Guideline*, to which the regulations refer. At 14.05 (1) (a) 6.a – 6.e.
 - b. Adds a definition of “Power Conversion Technology,” which is used for the eligibility of biomass units under certain provisions under the Vintage Waiver. At 14.02 and 14.05 (2) (c).
 - c. Requires that a biomass unit with a Commercial Operation Date prior to 1998, whether retooled or not, can qualify only under a Vintage Waiver and must meet the criteria applicable to new plants at the time the unit’s Statement of Qualification application is filed with DOER.⁴ At 14.05 (1) (a) 6.d, and at 14.05 (2) (d) 4.
4. Co-Firing and Blended Fuel Waiver provisions at 14.05 (3) have been broadened and clarified as follows:
 - a. The waiver now includes the newly-defined Blended Fuel (see #1.c, above).

³ References are to relevant sections of 225 CMR 14.00, and capitalized terms are defined in the RPS Regulation at 14.02 or are introduced in other sections of the Regulation.

⁴This provision codifies the position enunciated by DOER in its October 27, 2005 *Policy Statement on the RPS Eligibility of Retooled Biomass Power Plants*.

- b. The emissions criteria have been revised to be consistent with those applied within Massachusetts by the MassDEP, replacing what had been a virtually insurmountable barrier to the eligibility of electricity from co-fired units (using, in part, an eligible biomass fuel) and to the use of blended fuels. However, DOER may require the developer to engage at its expense an independent third-party consultant to assist the DOER and MassDEP evaluation of plant's emissions. At 14.05 (3) (c).
 - c. A fuel supply plan will be required and will provide DOER with better oversight of compliance. At 14.05 (3) (d).
 - d. A new provision states how the Historical Generation Rate is to be calculated for a co-firing Vintage Generation Unit. At 14.05 (3) (e).
- 5. Vintage Waiver provisions (applicable to Generation Units that operated prior to 1998) have been revised and clarified at 14.05 (2) (c). Specifically excluded from the necessity of a Vintage Waiver are the following (provided that, in the case of biomass plants, they meet the low-emission, advanced biomass power conversion technologies eligibility standards in effect for new plants at the time of application [see 3.c, above]):
 - a. A Generation Unit relocated into the ISO-NE Control Area or into an adjacent Control Area from outside those areas, provided that the Power Conversion Technology equipment did not previously operate in either area. Such a Unit provides electricity from Renewable Generation that is "new" to this region.
 - b. A Generation Unit that did not previously utilize Eligible New Renewable Fuel(s) at any time prior to 1998. This addresses the conversion of pre-1998 fossil plants to RPS-eligible renewables.
 - c. A Generation Unit installed at a site where a Renewable Generation Unit had operated prior to 1998, provided that the entire Power Generation Technology is replaced with post-1997 equipment, and excluding any landfill gas Unit located at the site of a pre-1998 landfill gas Unit. Previously, all such sites were subject to the Vintage Waiver provision. Also at 14.05 (1) (d) 4 and 14.05 (2) (b).
- 6. The output of grid-connected distributed generation that can qualify as New Renewable Generation is clarified to include electricity delivered onto the ISO New England grid from such Units outside of Massachusetts, as well as inside, subject to certain metering requirements. At 14.05 (1) (d) 1.
- 7. Imports from outside of the ISO New England Control Area:
 - a. Limits the source of imports to Control Areas adjacent to the ISO New England Control Area, since it is not reasonable to claim, and currently cannot be documented, that electricity from beyond such adjacent areas came from RPS-Qualified Generation Units. At 14.05 (5).
 - b. Clarifies that power imported into the ISO-NE Control Area from an RPS Qualified Generation Unit in an adjacent Control Area must be documented for each hour of the month, not averaged over the whole month. At 14.05 (5) (b) (2).
- 8. Other changes in definitions and provisions:

- a. Introduces the “RPS Effective Date,” when an RPS Qualified Generation Unit may begin earning MA RPS-qualified renewable energy Certificates (so-called “RECs”) at the NEPOOL GIS. At 14.06 (4).
- b. Distinguishes between a “New Renewable Generation Unit” and the newly- defined term, “RPS Qualified Generation Unit.” The latter includes both New Renewable Generation Units and also Units that qualify under the several waivers and special provisions, not all of whose output may qualify as New Renewable Generation. Vintage Generation Units, for example, are “qualified” but not “new.” At 14.02.
- c. Codifies that an Aggregation of small Units (typically photovoltaic systems) can apply for and collectively receive a single Statement of Qualification and be treated as a single RPS Qualified Generation Unit (a procedure already in practice and also provided for in the NEPOOL GIS Operating Rules). At 14.05 (6).
- d. Codifies the acceptability of an “authorized agent” to act on behalf of Generation Unit(s) Owners or Operators. At 14.05(6) (b), 14.06 (1), and elsewhere.
- e. Introduces a new Notification requirement regarding changes in a Unit’s ownership, generation capacity, or contact information. At 14.06 (6).
- f. Introduces a provision for a new Statement of Qualification to terminate 48 months from the date of issuance unless the Unit commences commercial operation within that period. At 14.06 (7).
- g. Provides for existing Advisory Rulings to expire six months after the effective date of the Regulatory revisions. At 14.06 (8).
- h. Commits DOER to provide, when it issues its decision at the end of 2007 regarding 2010-2014 RPS annual percentage increases, a date for a second such RPS extension decision. At 14.07 (2).
- i. Designates the Massachusetts Technology Park Corporation as a recipient of Alternative Compliance Payments, but provides that DOER may designate another entity. At 14.08 (3)
- j. Clarifies and codifies that the load obligation upon which the Retail Electric Suppliers must comply with the RPS minimum standard is to be based on the available NEPOOL GIS data representing retail load served, inclusive of distribution line losses. At 14.09 (2) (a) and (b).
- k. Adds a Severability provision. At 14.13.

The above list is not exhaustive and is limited to identifying substantive changes. In addition, DOER’s proposed revisions include some minor procedural or definitional clarifications, technical updates, corrections, and cross referential changes.